

REMARKS

Applicant kindly thanks the Examiner for conducting the interview of April 21, 2008. A description of the telephonic interview is provided in the Interview Summary filed herewith.

In response to the office action dated December 27, 2007, Applicant has amended claim 1 and canceled claims 10 and 11. Claims 1-7, 21, 22, and 26-28 are presented for further examination. Favorable reconsideration and further examination are respectfully requested.

Claims 1-7, 21-22, and 26-28 were rejected over U.S. Patent No. 6,091,355 (Cardotte) in view of U.S. Patent No. 3,454,945 (Hyltin). As shown above, Applicant has amended independent claim 1 to recite that the radar transceiver comprises a cover film that at least partly covers the electronic component, and a metal layer that at least partly covers the cover film. In view of these amendments, withdrawal of the art rejections is respectfully requested.

Cadotte describes a radar unit that includes a multilayer printed circuit board with four layers of copper pattern (24, 30, 4, 7 and 6) separated by substrate layers (2, 8, 5). (See, e.g., Cadotte at col. 5, lines 15-17; see also FIG. 1). As the Examiner has pointed out, the electronic circuitry on one side of the board 1 contains a microwave oscillator 13 (including a dielectric resonator 17), and a mixer 25 connected to the pattern 6 as shown in FIG. 4. (See, e.g., id. at col. 6, lines 29-41; see also FIG. 4). However, Cadotte still fails to describe or suggest "a cover film that at least partly covers the electronic component [on the surface on the metallized top surface of the substrate], and a metal layer that at least partly covers the cover film."

Hyltin describes a radar antenna module that includes a mixer and a resonant circuit. (See, e.g., Hyltin at col. 2, lines 44-45; col. 2, lines 66-70). The Examiner acknowledged that

Cadotte “fails to disclose the integration of the circuit components themselves into the metallized internal surface,” and apparently added Hyltin for allegedly disclosing these missing features, and suggested that “[i]t would have been obvious to modify Cardotte to do so, as taught by Hyltin, in order to achieve a small light weight radar apparatus.” (See, e.g., Office action of December 27, 2007 at page 3). However, Hyltin still fails to remedy the deficiencies of Cadotte as discussed above. Specifically, Hyltin does not teach or suggest “a cover film that at least partly covers the electronic component [on the surface on the metallized top surface of the substrate], and a metal layer that at least partly covers the cover film.” Accordingly, even assuming, without conceding, that a person of ordinary skill in the art would have thought to modify Cadotte’s device to include integrated circuit components as allegedly disclosed by Hyltin, the resulting device still would not provide a cover film that at least partly covers the electronic component, and a metal layer that at least partly covers the cover film, as required by the Applicant’s claims. Nor do either Cadotte or Hyltin indicate that such an arrangement would be in any way beneficial. Nor would a person of ordinary skill in the art have modified the resulting device to provide such an arrangement.

These are not merely trivial distinctions. As noted in Applicant’s specification, for example, the covering of the electronic component with the film may help to protect the electronic component against humidity and external mechanical effects. (See, e.g., Specification at page 11, lines 20-33). In addition, the metal layer can aid in shielding the transceiver against the environment. (See, e.g., id. at page 12, lines 5-6). Furthermore, integrating the passive components of the mixer and/or the oscillator, at least partially, into the substrate, allows the

integrated components to be sufficiently spaced from the metal layer which may aid in inhibiting parasitic coupling.

Each of the dependent claims is believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim, in light of the foregoing amendments, and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicant respectfully submits that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

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Page : 10 of 10

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Please charge any additional fees, not already covered by check, or credit any
overpayment, to deposit account 06-1050, referencing Attorney Docket No. 14219-090US1.

Respectfully submitted,

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